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ABSTRACT

This paper presents two propositions: (1) that extensive knowledge of subject matter is a necessary but not sufficient condition for effective teaching; and (2) that teacher education is a legitimate professional preparation which should be improved rather than circumvented. Six rationales for the validity of the above propositions, based on theory, logic, research, expert opinion, experience, and common sense, are detailed. In addition some historical perspective is provided regarding the use of teachers with and without professional education. (CB)

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An Evaluation of the Rationale for
Required Teacher Education:
Beginning Teachers With and Without
Teacher Preparation

Prepared for the National Commission
on Excellence in Teacher Education
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Preface

This paper is based on two propositions: that extensive knowledge of subject matter is a necessary but not sufficient condition for effective teaching; and that teacher education is a legitimate professional preparation which should be improved rather than circumvented. The paper analyzes six types of answers to how I know these propositions to be true: theory, logic, research, expert opinion, experience, and common sense. Prior to these six rationales, some historical perspective is provided regarding the use of teachers with and without professional education.

Summary

Proponents of using liberal studies graduates as teachers, as well as those who would permit only teacher education graduates to be hired as beginning teachers, must both deal with the question, "How do you know your approach would improve the quality of teaching?" This paper has grouped the answers to this question into six categories: theory, logic, research, expert opinion, experience and common sense.

Preceding these analyses is a section which seeks to place the issue of using unprepared graduates into historical perspective. Reforms advocated for elementary and secondary education have always been a major determinant of teacher education programs. Since its inception, teacher education has emphasized a curriculum based primarily on academic disciplines. Since 1893 there has been a regular cyclical pattern characterized by a call for universal excellence in one period and a diversity of goals for various constituencies in another. The great universities, rather than fighting the normal schools, developed the research and theory which made teacher education a legitimate academic enterprise. In the past century, the liberal arts have been transformed into widely divergent programs of liberal studies. Today, requirements for liberal/general education in most universities reflect the expansion of knowledge and faculty preferences more than they mirror a small core of eternal verities. The proposal to use liberal studies

graduates as teachers has been a constant theme in American education and most popular in periods when demands for excellence are dominant. The next cycle for increasing access, serving multiple constituencies and vocational preparation is already taking shape.

Theory

In their professional laboratory experiences, teacher education programs approach preservice students as learners. Supervisors of these experiences, to some degree, implement the principles of learning with these future teachers. In a similar fashion, theoretic explanations of behavior drawn from sociology and organizational science also affect preservice students as they participate in direct experiences. Teacher education faculty, to some degree, make students aware of how these theories can explain forces which affect their role and work as teachers.

Placing untrained college graduates into teaching positions--graduates who have never been treated as learners in professional laboratory experiences--assumes that it is not necessary for beginning teachers to also function in the roles of learners, subject to the principles of learning. Or, it may simply assume that there is nothing to learn about the process of teaching. Similarly, the practice of using untrained college graduates as teachers assumes that theoretic knowledge for understanding the community's impact on the school, or the school's

impact on teacher groups, or the teacher group's impact on the neophyte, is either unimportant knowledge or completely amenable to self-discovery.

Logic

The recurrence of the proposal that a liberal studies degree is sufficient preparation for classroom teachers may be explained, in part, by the tendency of leaders to reason egocentrically. Reasoning from their own experience may also explain the advocacy that college teaching could serve as a model for teaching in lower schools.

A degree program limited to four years restricts opportunities for additional courses and is a basic cause of controversy between liberal and professional educators.

There appears to be little logic in the most common arguments for using liberal studies graduates. Need for classroom teachers is still the most important determinant of using unprepared graduates.

Research

There is some evidence that provisionally certified teachers who have had varying amounts of education courses and up to four years of teaching experience score as high or higher than some regularly prepared teachers on some tests of school curriculum content, academic subject matter and professional knowledge. The label "liberal arts" graduates as applied to provisionally certified teachers is misleading since it may lead to the assumption that

these are individuals who have had no Education courses, no teaching experience, or no supervisory help. In truth, these populations may be self-selected liberal studies graduates who have already passed a National Teachers Examination and who have experienced all three forms of teacher education cited above (i.e., courses, experience, and supervision).

There is much evidence to support the contention that regularly certified teachers perform at a higher level than those with provisional certification. This evidence is usually based on the ratings of principals, colleagues, the public and students, and not on achievement scores.

The basic research argument in support of teaching has successfully demonstrated two things: it has established that there are behavioral skills of teaching which relate to pupil achievements and it has been demonstrated that teacher education programs can teach these effectiveness behaviors to future teachers.

The follow-up literature, which has studied practicing teachers' perceptions of their teacher education programs, indicates a continuing demand for more practical teaching skills.

Expert Opinion

Future teachers need more than learning "about" psychological principles of learning or other content areas which have come to be accepted as fundamental to pedagogy. The role of college student, whether in liberal studies or professional

programs, requires students to consciously reflect upon the process of learning as they go through it. It is this awareness of knowing how they have learned which is the basis of their guiding the learning of others.

Many of those experts whose scholarship now forms the basis for pedagogic study have come to recognize the great teaching potential of graduates with strong subject matter expertise-- particularly in the teaching of higher cognitive skills to all pupils and in the teaching of the gifted.

The trend to increased evaluation of liberal studies programs has led to greater objectivity in the way many college programs now state their goals and objectives for students. What seems to be revealed by this trend is that many liberal studies objectives are almost the same as professional studies objectives-- with different nomenclature. It may well be the case that many liberal studies students are now inadvertently preparing for teacher competency exams by studying pedagogic skills and knowledge under different labels.

Experience

A conceptual distinction exists between fifth year university programs for preparing liberal arts graduates as teachers and recent initiatives whereby States appoint unprepared teachers on the basis of examination or upon recommendation of a district. While the practice of appointing graduates without teacher education

has a long and widespread history, many urban school districts have made this a common practice over the last twenty-five years. Whereas these practices went unpublicized in the 1960's, they are now revealed openly as examples of upgrading the quality of teaching and schools.

Experience with interns in fifth year programs and with untrained graduates, unaffiliated with any university programs, indicates that the most promising liberal arts graduates (i.e., strong-sensitives) do not stay in teaching. Indeed, in some large urban districts, five out of six of all beginners have not survived the first year. Those who remain in teaching through the first year and beyond tend to be the strong-insensitives.

Recognizing the importance of higher salaries for present teachers and as a means for attracting more able beginners, there are also other conditions in the schools which must be changed before those with the greatest potential will remain. These conditions involve all those factors in the school which teachers perceive as influencing the teaching-learning process in their classrooms.

Common Sense

Increasing numbers of children/youth have handicapping conditions. There is no rational connection between being a successful liberal studies graduate and learning how to meet the needs of these special constituencies.

School bureaucracies have a way of transforming common sense "solutions" (e.g., increased salaries, differentiated staff assignments, more time for planning, etc.) into unintended effects. Careful planning must go into working changes through the school bureaucracies.

Common sense teaching behaviors of well-intentioned but unprepared college graduates are very likely to interfere with effective classroom discipline and pupil learning.

Critics of teacher education are accurately pointing to the need for significant improvements in teacher education and not actually calling for its demise. Teacher educators should use the current cycle of educational reform as a basis for joining with reasonable critics to improve both the conditions under which classroom teachers work and the academic foundations of teacher education.

Perspective

The fact that particular criticisms may be old, continuing, or unimaginative, does not prevent them from also being correct, or partially correct. The contentions that teachers have insufficient knowledge of the subjects they teach, or that everything a knowledgeable college graduate needs to learn about teaching methods can be learned on the job, are certainly well-aged assertions. Some attribute the persistence of these ideas to intrinsic validity, others to the fact that serious misconceptions are frequently passed on from one generation to the next.

The history of teacher education in America, in a very real sense, can be viewed as one continuing effort to provide teachers with increasing amounts of subject matter in academic disciplines as well as with more pedagogy. The contention that pedagogic study somehow drove out liberal/general studies is not supported by historical fact. The first normal school opened by Samuel Hall in Concord, Vermont in 1823 was a three-year program: the first two years were devoted to elementary and advanced studies of subjects such as mathematics. It was only in the third year that schoolteaching was taught. The second and third normal schools in Lancaster and Lexington, Massachusetts were scarcely more than primitive high schools for girls of sixteen and boys of seventeen. It was a curriculum which emphasized content such as mathematics, surveying, physiology, the Constitution, history, Christian piety, and morality. Only toward the end of the program was there some

pedagogy, a chance to observe in the model school and a demonstration of the student's ability to emulate the master's demonstration lesson. Prior to the Civil War there were 11 normal schools in the United States. In addition, several municipalities started their own normal schools: Boston, New York, Trenton, Philadelphia, Baltimore, and St. Louis. While the programs were advertised as up to two years in length, the majority of students attended for only a few months. It was, for many, an advanced elementary school and its "graduates" returned to teach on that level. Most of the program was devoted to the study of elementary subjects with almost no pedagogy. There were, at the time, less than a half dozen treatises on teaching and most normal school students were fortunate to ever see even one of them. The schools were

" the epicenter of hostility ... the most ferocious adversaries, oddly enough, were the schoolmasters themselves who regarded the demand for professional training not only as so much piffle, but a slur on their competence and hence on their dignity." (Meyer, 1957, p. 206)

What was known about pedagogy at the time seemed to make little difference on the schools which continued to emphasize memory and rote training.

After the Civil War the influence of Pestalozzi was felt on the schools and on the training of schoolmasters. The Oswego, N.Y. schools and the N.E.A. gave Pestalozzi's object teaching method its official endorsement. This method stressed the observance of concrete things and the ability of the pupil to communicate his

observations. It upgraded the teaching of the 3 R's, geography, drawing, elementary science and even music. By the 1890's, however, the new influence was that of Herbart, who invented "the lesson" as it is still practiced in most schools. In the remainder of the century the influences of Froebel and Spencer were also felt in the schools and in teacher education.

In all cases it was obvious, clear, and redundant that the 19th Century programs of teacher training were devoted primarily to upgrading the academic knowledge of teachers; whatever pedagogy was offered was merely a means of highlighting, connecting, or teaching subject matter to the would-be teachers themselves. The teachers were then expected to repeat the very same lessons, using the very same methods, with their pupils. The issue was not liberal arts subject matter versus pedagogy, but how to offer sufficient subject matter to the undereducated individuals preparing to teach.

The double function of the normal school--its review of basic subjects and its introduction to pedagogy--persisted into this century. But the demands for more subject matter transformed two year programs into three and eventually into four year teachers colleges and state universities.

The educational mission of the normal schools and the teachers colleges was not simply to prepare teachers: it was to provide "advanced" educational opportunities for poor people, those living in rural areas, individuals who could not afford to attend universities and many who were not admissible to universities. The

criticism over the past century that these institutions should offer more general/liberal studies has consistently been implemented by these institutions--but has still not stifled the criticism. It merely changed the criticism to "Those liberal studies lack university quality,"--even when, in recent years, they were taught by Ph.D.'s from the universities. Even the advent of Schools of Education within the great universities has not altered the demand for more liberal/general studies and fewer Education courses. Indeed, the historical pattern seems to be that the more liberal studies are offered, the more they are demanded. One student from abroad recently asked me, "If a secondary Education student at the University of Wisconsin takes three years of liberal studies and one year of professional education, why is he a "product" of the School of Education?"

There are several generalizations which might be made regarding the development of normal schools and teachers colleges: these institutions provided "advanced" education to many people who were without access to universities and who did not become teachers; they emphasized a teacher education based on technical/practical "how to"; they were largely uninfluenced by university traditions or the use of theory and research as the basis for courses. Finally, and most important, it was the universities themselves which generated all the theory and research which expanded school teaching into the Education Professions. The professional subject matters (i.e., learning, testing, exceptional education, human development,

curriculum, research, and their numerous subspecialties) were all developed in our leading universities; they did not emanate from within the traditional forms of normal school and teachers college programs.

The specific debate of using liberal arts graduates versus those with professional training took its present form about a century ago in response to two trends. The normal schools began training programs for secondary teachers--as high schools grew and needed more teachers. At the same time, universities established chairs in psychology, pedagogy and education, and began to prepare secondary teachers themselves.

The development of whole new fields of inquiry were also occurring at a rapid rate in liberal/general studies. The fields of psychology and sociology burgeoned in the same period as the explosion of knowledge in the sciences. A liberal education prior to 1893 was essentially a classical education. "Liberal arts" today are a vastly expanded, broad array of subspecializations about which there is little agreement. In most universities the "return" to the common core is a codification of what the present faculty can politically agree upon as its distributive requirements: it is not a "return" to anything as much as it represents the college experiences of the particular faculty members voting on the particular requirements.

Simultaneous to the burgeoning of new disciplines in physical science, social science, and even humanities (Literary

Criticism, Film Making, and Oral History are just a few examples of very recent "liberating arts."), the disciplines that were to become the bases for professional education were being developed in the very same universities: Columbia, Johns Hopkins, Chicago, Iowa, Ohio State, Stanford. The work of G. Stanley Hall, who established America's first laboratory in analytic psychology (Johns Hopkins, 1883), became the basis for child study, which ultimately became a universal requirement for all teachers of children. The work of Terman and Thorndike became the basis for standardized assessment--a required unit or course of study for all professional educators. The work of Dewey in connecting democracy with child development and school programs, established philosophy and curriculum as standard professional fare. In case after case, it was the scholars in the leading universities whose research and theoretic breakthroughs established the knowledge bases of pedagogic study. In contrast, the normal schools and teachers colleges built upon the cumulated wisdom of practicing teachers and emphasized two realms of knowledge: the actual content that the future teachers needed and the specific techniques of how to teach these lessons. It remained for the leading universities to pioneer and lay out the fields of inquiry which became the basis of present teacher education programs--these include educational psychology and school learning; educational research; the causes and educational treatments of learning disabilities; curriculum development; educational philosophy, history, sociology and comparative education; child,

adolescent and adult development. In recent years, theory and research in organizational sciences have added substantial content to the education of school administrators, while advances in medicine, psychology and assessment have added to the preparation of school counselors and psychologists.

In sum, the significant expansion of the knowledge base in professional education developed during the very same period as the expansion of liberal/general studies. The developers of this knowledge expansion were not vacuous pedagogues from the normal schools but some of the most prestigious, most highly honored scholars of our leading universities.

In truth, the universities largely ignored the advent of teacher training institutions until these institutions got into secondary education. Then, as now, the advocates of liberal studies criticized the professional educators as lacking substance while the educators criticized the universities as unresponsive to life, to the schools, or to their own new discoveries. It is interesting that even when liberal studies were limited primarily to the classics (the period prior to World War I.), it was argued that this knowledge was all a graduate would need to be an effective teacher in a Western outpost, a rural area, or an urban slum. A quote from a critic of the time demonstrates the continuous debate about what liberal studies are:

"The thorough-going advocates of classics hold Latin and Greek to be indispensable to a liberal education. They do not allow of an alternative

road to our university degrees. They will not admit that the lapse of three centuries, with their numerous revolutions and their vast development of new knowledge, makes any difference whatever to the education value of a knowledge of Greek and Roman classics. They get over the undeniable fact that we no longer employ those languages, as languages, by bringing forward a number of uses that never occurred to Erasmus, Cassubon or Milton." (Bain, 1893, p. 359)

There is another noteworthy dimension to the debate; it has a pulsating quality which seems to ensure that in almost every decade we are once again embroiled in proving that effective teachers need only (or much more than) a thorough knowledge of their subjects. In any given period, those who advocate high standards, failure for those who cannot compete, and rigorous testing for all children and youth, seem to rally those who believe that only subject matter is needed for effective teaching--particularly secondary teaching. In 1893 the Committee of Ten reversed the traditional American commitment to mass education and announced that high schools should be reserved for

"that small portion of all the children in the country ... who show themselves to be able to profit by an education prolonged to the eighteenth year and whose parents are able to support them while they are in school."
(Committee, 1894, p. 51)

There is no question that this report, by also defining the content and units of a high school curriculum, became and remains the most important document in American secondary education. When it was issued in 1894 it set off harmonious resonances among all groups concerned with the low level pap they perceived being taught

in the normal schools and teachers colleges of the day.

But then the pulsating, cyclical nature of this debate took hold and there was a reversal of the popular wisdom. In the years prior to World War I immigration continued unabated, as did the need to educate the masses for purposes other than college. The purposes of secondary education were significantly broadened. Given the more comprehensive goals, teachers were needed with the ability to offer more than the classics: business, home economics, all forms of vocations, and general studies were advocated to acculturate pupils into American society. Teachers were sought who could "relate to" the foreign born pupils of varied cultures and the poor and, at the same time, maintain discipline and teach the basics. The goals of the school shifted from classical rigor to the creation of a melting pot. Obviously, the kinds of teachers and teacher education being demanded also shifted. The teachers colleges took on many of these broadened responsibilities with more "how to" courses--and those advocates left over from the previous Committee of Ten era subsided--temporarily.

The cyclical nature of the debate--with "standards" in one period countered by diversity and opportunity for all in the subsequent era--has continued and intensified into more recent times. In the 1940's and 1950's the goals of greater access, expanded opportunities for the masses and vocational training were dominant. This was a period of rapid growth in which many teachers colleges became state universities and numerous new Education

doctoral programs were introduced in the leading universities. Many of those earning these new Education doctorates became the faculties of the developing teachers colleges; they expanded the professional studies of these institutions by teaching the new specializations they had honed at the university. The philosophy which dominated public education was clearly one which required professionally educated teachers who knew more than academic subject matter. Consider how the following manifesto for the schools supported an expanded teacher education:

- "1. Knowledge is not something that can be handed down on authority.
2. Subject matter taken on authority is not necessarily educative.
3. The best way to teach is not the setting out of subject matter in unassociated fragments.
4. Education is not preparatory to life; it is life itself.
5. Working out purposeless tasks will not necessarily produce good discipline.
6. The answer to a particular academic problem is less important than the process." (Kelley, 1947, p. 14)

Even before Sputnik (1957) the new cycle was already shaping a narrower school curriculum and demanding teachers with less (or no) professional education. In 1956 the Council for Basic Education promoted the following program:

1. Basic intellectual instruction must be the keystone of public education. The "hard" liberal curriculum emphasizing English, mathematics, science, history, and foreign languages must replace the purposeless "life adjustment" curriculum for all students, excluding those with clearly limited intelligence.

2. Students with high ability must be provided with greater opportunities to develop to their maximum capacities.
3. Standards must be developed to measure student achievement and to determine promotion to higher grades and classes.
4. Teachers must be more adequately educated in the subjects that they teach.
5. When vocational training is offered, it must be duly subordinated to the primary function of the school: the development of intellectual discipline.
6. Those school administrators who resist pressures to include programs in the curriculum more properly belonging in the home or church must be supported. (Koerner, 1959, p. 372)

In 1959, Admiral Rickover observed that "The preparation of teachers in this country is notoriously inadequate as compared with programs for European teachers that provide liberal education for its teachers equal to that of our lawyers and other professionals." (Rickover, 1960, p. 2)

In response to national demands for excellence, higher standards and beating the Russians, the 1950's and early 1960's were characterized by the burgeoning of intern programs in teacher education. The Ford Foundation had actually led the way by initiating the first intern program at the University of Arkansas in 1948 (in the preceding cycle). As it became clear that the dominant theme of the 1950's was to be a return to the basics and excellence, teacher educators were ready. Almost every major university launched a fifth year program for liberal arts graduates, while the teachers colleges (now state universities) introduced a wide range of new majors in order to overcome their image as single mission institutions (i.e., teacher colleges). Harvard, Teachers College,

Columbia, the University of Wisconsin, and Stanford once again led the way with the new (actually renewed) emphasis on liberal arts graduates who, with a summer of pedagogy, were paid modest stipends and placed into classrooms as teachers.

When the impact of the Great Society legislation began to be felt in the mid 1960's, the shift was once again back to serving the masses with a variety of programs that emphasized goals other than excellence, intellectual discipline and preparation for college. Instead, Head Start, compensatory education, the Right-to-Read, expanded vocational programs, adult basic education, bilingual education, women's studies and, finally, the great thrust for equalizing education of the handicapped, all combined to significantly broaden the goals of elementary and secondary schools to their widest point in history. Practically anything that any organized constituency supported became ensconced as a legitimate responsibility of public education. And teacher education programs responded with an equally broad array of professional courses and direct experiences. In the previous cycle (i.e., 1950's and early 1960's) top-notch liberal arts graduates had been sought to upgrade the intellectual development of the most promising children and youth. In the Great Society period, the effects of which extended into the mid 1970's, large numbers of liberal arts graduates were also recruited but for Teacher Corps and for service in understaffed schools attempting to meet every goal imaginable--educational, social, health and well-being.

In effect, since 1893, the pressures on schools have been a see-saw between traditional calls for academic excellence and progressive demands for differentiated programs: those who believe in a common curriculum versus those who argue for differentiated goals.

Some analysts of the current era have already pegged the current period as the reaction to the programs aimed at equalizing educational opportunity. They read the current reports as the simplistic, traditional solutions of the past. "Excellence in the reports is not defined but has come to mean higher standards, tougher academic requirements, reduction or the elimination of electives, more mathematics and science, more homework, longer school days and school years, better school discipline and management, and more testing. There is an assumption that poor quality of teaching is responsible for the crisis but excellence in teaching is not defined." (Passow, 1984, p. 3)

Teacher education has not shaped the alternately broad and narrow goals advocated for public education. It has, however, responded. Unfortunately, there is always a lag time and professional education usually finds itself still working on the demands of the previous era (e.g., human relations training) when the schools are already beginning to once again demand academic excellence. It is noteworthy that right now, when the schools and teacher preparing institutions are just beginning to gear up to respond to the renewed calls for excellence, that the seeds for the

next cycle have already been sown: there are increasing numbers of studies which show that, as a consequence of raising standards, the drop out rate is rising and something must be done; there are increasing court cases of handicapped youngsters who did their best, but who are being denied high school diplomas; and there are renewed demands that something must be done, by schools, to ameliorate youth unemployment.

Summary of Perspectives Section

I have argued that demands for the reform of elementary and secondary education have shaped related demands for the reform of teacher education; that academic subject matter has been the dominant emphasis of teacher education since its inception in 1823; that since 1893, the demands on elementary and secondary schools have followed a clear, cyclical pattern; that teacher education has responded to these alternating demands albeit with a lag time that overlaps the cycles; that the cycles may be characterized as advocating a common core for excellence on the one hand, and educating various constituencies toward different goals on the other; that the great universities, rather than fighting the normal schools, developed the research and theory which made teacher education a legitimate academic enterprise; that the liberal arts have been radically changed into liberal/general studies whose requirements reflect the knowledge explosion and faculty preferences, rather than eternal verities; that the proposal to use liberal arts graduates as teachers has been a constant theme and

most popular in periods when demands for excellence dominate; and
that the next cycle has already taken shape and is quite predictable.

THEORY

What theory or theoretic constructs would justify the process of teacher education: How would such concepts support the contention that an individual who had completed a teacher education program would be more likely to do better than one who had not?

In sound programs of teacher education, students have a sequence of direct experiences: observation; short periods with small groups of varying ages; tutoring of individuals; student teaching for an extended period in the room of a master teacher; and finally, serving as an intern or beginning teacher with full responsibility but under regular supervision. In all of these experiences there is a college supervisor or master teacher to provide regular feedback, to suggest the next level or skill to be practiced, and to confer with the neophyte on the meaning of the experience. In order for the beginning teacher to improve each year, rather than to have one year of experience repeated over and over, the actual experience of teaching must itself be a learning experience. As someone learning to teach, the intern or beginning teacher is subject to the same laws of learning as anyone else. Consider even a few principles of learning as they might apply to an individual learning to teach:

- Behaviors which are rewarded are more likely to recur.
- Reward or reinforcement to be most effective must follow the desired behavior and be clearly connected with that behavior in the learner's mind.

- Sheer repetition without feedback or reward is not educative.
- Fear of failure has uncertain effects on learning and may cause repetition of ineffective responses.
- Frustration, if too great, may cause anger and prevent behavior from being purposeful or rational.
(Howey, Corrigan, Haberman, 1979)

Obviously, these are merely a few sample principles selected from a pool that is significantly larger. Is there still any debate that human learning is an established field of theory and research? Can there be any question that the intern or beginner is expected to use his teaching experience to learn to improve his teaching and is, therefore, in the position of a learner, subject to the principles by which all individuals learn? This being the case, consider the situation of a teacher education student in some direct experience with pupils under the guidance of a supervisor or master teacher. In such a situation the student teacher, and not the children or youth, is the primary learner and the supervisor or master teacher uses the principles of learning to teach the neophyte to teach. By "primary learner" I refer to the fact that the program has been designed for the teacher education student and not for children or youth. As the primary learner, it is the student teacher's or intern's behavior that is rewarded, or connected with other desired behaviors. Through modeling behavior, or consultation, or cooperative planning of next steps, the supervisor also prevents fear of failure or frustration from interfering with

learning. The student teacher or intern is never in a situation of sheer repetition without feedback. The process is essentially one of a tutorial supported by direct experience in which the neophyte has all the advantages of practice under supervision and all the benefits of being the primary learner. This situation continues up to the period of internship where, along with responsibility for children or youth, the beginner still receives supervision and continues his own development.

Contrast this situation with a college graduate who is given full responsibility to teach and has never had such direct experiences or supervision. The college graduate (suddenly teacher), can in no way be viewed as the primary learner by anyone who seeks to help him. From the first day of school (which is also the first day on which the college graduate may begin to learn to teach), the pupils in the classroom are the primary learners and the college graduate must be professionally responsible and accountable for their learning and not his own. The extensive body of literature from which learning principles are derived cannot be applied to the unprepared individual simply placed into a teaching situation. Placing those without teacher education into teaching situations assumes that either there is nothing for them to learn about teaching, or that the unprepared college graduate will self-discover everything worth learning--with no ill effects to himself or the pupils.

Self discovery is a very powerful means of learning: whatever is learned by this method tends to be remembered. The problem with self discovery is that it is also wasteful of effort and time consuming. In looking for a toilet, it is much more efficient to refer to one's knowledge of building layouts, to consult a directory, or to ask someone, than it is to try every door in the building. Whether one tries every door systematically, floor by floor, or whether one uses trial and error, the effort is not worth the learning. Other problems with self-discovery include knowing what to try, having criteria for evaluating the outcomes of the trials and being able to reconstruct exactly what one did that achieved the desired results--should any occur.

Unsupervised experiences for beginning teachers who have not had teacher education are unlikely to be educative because, focused as they must be on the pupils, most neophytes never even ask themselves, "What did I learn about teaching today?" They are immediately and permanently locked in on their pupils' behavior as if their own personality, behavior, and intentions are irrelevant to what may be happening in the classroom. The aphorism, "Experience is the best teacher," is not necessarily true for people beginning to teach without previous direct experience or supervision. Experience makes us take the tests first and offers us the learning afterward--if at all. Mark Twain once remarked that a cat that sits on a hot stove once will never sit on a hot stove again--or on a cold stove either. Unfortunately, overgeneralizing the wrong

lessons from one's experiences is not a practice limited to cats. If we are not prepared with a conceptual scheme for understanding our experience and with a conscious orientation that we are expected to extract valuable learnings from these experiences, we are predestined to overlook much valuable data, and to overgeneralize specific events from our experiences to subsequent situations and to other people.

Thus far, we have discussed theoretic constructs from psychology which support the potential value of preservice and first year teachers being conceived of and worked with as individual learners. There are other theories and principles from sociology and organizational science which are also germane to the process of teacher education. These theories deal with explanations of human behavior based on how individuals function in groups in particular settings. The basic assumption of teacher education experiences (and coursework) is that future teachers need to learn some fundamental concepts related to the role of a teacher, how teachers are influenced by the groups in which they function, the influence of administrative style on teachers, and the impact of particular school settings and communities on the work of the teacher. To not prepare an individual teacher to recognize, participate in and cope with the organizational and social realities of schools is to assume that these dimensions do not control or influence the teacher's work. Indeed, there are some who still believe that because the teacher can close the classroom door these influences and controls

do not exist.

Social institutions (e.g., schools) have organic qualities, "lives of their own," which supercede and transcend the individuals who work in them. A substantial degree of individual behavior can be explained, not only by studying personalities, but by understanding the formal and informal roles and statuses which individuals occupy in particular social institutions. To understand and predict the behavior of individual teachers, the most fruitful unit of analysis may be the school and not the individual teachers in it.

At any given point in history, school settings reflect the larger society: the one-room school of the agrarian community with no bureaucracy, but with ultimate control over teacher behavior; the comprehensive schools after World War I which reflected the businesslike, tracked approach to education; the sprawling shopping-mall-type schools after World War II reflecting the varied constituencies of a consumerist society; the compensatory school of the large urban area with its emphasis on catch-up and school spirit; the intellectual setting of some suburban and private schools dedicated to college preparatory programs; the creative settings of some fine arts and specialty schools. The goal is not one of making the future teacher a sociological researcher but of teaching him some of the fundamental cultural influences which the school will be exerting on him. This dynamic gets even more specific as particular school settings are influenced by specific

ethnic groups or communities in transition.

As important as these community settings and school cultures are, the impact of the particular building's teachers is an even more powerful influence on the neophyte. It might be helpful to briefly review some salient aspects of what the literature dealing with group norms tells us about the induction of beginners into work groups. Much psychological, sociological and organizational science literature is germane to understanding the process of going through the professional laboratory experiences of a teacher education program.

What we know of worker induction into the work group is, in great measure, applicable to the process by which a new teacher becomes a "regular" one. Classroom teachers, while appearing to function as independent practitioners are actually integral members of significant groups--groups which may appear to be disorganized coffee and lunch cliques but which, in essence, exert substantial control over what is taught, how it is taught, teachers' perceptions of students, teachers' relations with parents and the full range of teacher practices.

The notion that since teachers spend most of their time alone with students, that they are "free," "unsupervised," or "independent practitioners" is simpleminded. Harrison, in summarizing the literature on interaction in small groups, states:

"A reference group is any group that provides standards by which we can evaluate ourselves and adjust our behavior accordingly ... A very important aspect of a reference group is

that it need not be present in order to exert an influence on individual behavior ... The common assumption is that if a person wants to belong to a group, that group constitutes a reference group for that person." (Harrison, 1976, p. 405)

Can student teachers, or beginning teachers, or any individual teacher for that matter, not want to be an accepted member of the school faculty? This dynamic of group control is the best explanation we have for understanding the discrepancy between individual teacher behavior and group teacher behavior. Frequently, if we ask individual teachers if they will strike they say "no"--but then they do. If we ask individual teachers do they believe in standardized tests they say "no"--but then they administer them. If we ask individual teachers do they believe students should be free to go to the library, they say "yes"--but then they check hall passes. If we ask individual teachers whether they believe in individual differences they reply "yes"--but then they offer only group instruction.

The usual explanations for these discrepancies are that teachers will not say what they really believe--that there is cognitive dissonance and a gap between expressed attitudes and behavior. Another explanation is that authoritarian principals or unruly students prevent teachers from acting on their beliefs. The factor that is continuously overlooked, however, is that there are group norms operating in the bureaucracy which impinge on teachers' behavior. From the time a teacher arrives in the morning, to the specific shelves upon which they store their lunches, to the way

they greet their students, through the assignments they make, the grades they give, the manner in which they look at, speak to and listen to students, they are significantly affected by the group norms of the teacher groups in their schools. While it is true that each of us belongs to many reference groups, it is also true that our work groups play a significant role in our lives and a highly significant role in determining our working behavior.

In his classic experiment on having subjects participate in groups that were trying to match the length of lines, Asch placed subjects in eight-person groups where every other person was programmed to give the wrong answer (Asch, 1956). This false majority actually said shorter lines were longer. Asch's findings were that one-third of the subjects yielded to the pressure of the group and said they saw shorter lines as longer ones. The question was then raised: Are yielders merely conforming, or do they actually perceive differently when under group influence? A more frightening question which has not been studied is: If group pressure can change our perceptions of simple, unemotional, physical things held before our very eyes, what distortions may these group pressures effect when unleashed upon vague, unseen concepts such as "equality of educational opportunity?"

Darvis and Lofquist have described the fixed job model as a concept in which jobs are unchanging, in terms of the required performance abilities and outcomes. The goal is to match the right person with the job and if there are difficulties, to blame the new

person or the selection system. Kahn and others have theorized about an interpersonal role-making model where the beginner has an organizational role and receives feedback from others as he behaves. (Kahn, 1964) This conception assumes an incompleteness in the organization and accounts for some adjustment by both the organization and the individual. Whichever conception you choose and they both characterize some school situations, the group norms of classroom teachers make these models operative. In the fixed situation the student teacher or beginner will be more secure but less free; in the interpersonal conception the student teacher will be more personally involved but feel more tension. In either case, the norms of the teacher group will be of greatest significance in determining the student's role. (If you believe that student teachers or interns do not participate in teacher groups, remind yourself that the supervisors who socialize them to the school culture are members of a teacher's group and must live with this group long after the neophytes are gone.)

Graen has described the induction process of beginners in work situations as including three phases: initial confrontation, working through, and integrating. (Graen, 1976) The initial confrontation stage is most interesting since it described a "disillusionment phenomenon" whereby high expectations before experience are followed by much lower expectations after experience. Vroom and Deci found these less favorable expectations beginning just prior to experience, deepening during the first year,

and lasting approximately two and one-half years. (Vroom and Deci, 1971) This phenomenon has been so reliably documented that it is now expected that newcomers will be "turned off"--that they must inevitably go through such a stage--before they can be integrated into the work group. Many commentators on the research literature conclude that the most a training program or an induction process can do is to delay the full impact of disillusionment until the newcomer is prepared to cope with it.

Although it is clear that individuals in organizations are substantially dependent upon members of their work groups for gaining the knowledge and skills they need to perform their jobs adequately, little controlled research has been done to explain how this takes place in organizational settings. There are psychological theories of stimulus and response and sociological explanations of inherent needs for group approval and belonging, but little to explain the apparently universal drive of inductees to be part of a work group, or at the very least, to not incur its displeasure.

Studies on deviation which seek to identify how much tolerance can be given newcomers also have important implications for laboratory experiences in teacher education. Findings suggest that the freedom to deviate is fairly fragile even for members who have paid their dues with long years of obedience. Pressures to conform to group norms are greatest when group members are motivated to achieve uniformity, when the norm is of importance to the group,

and when a member's deviant behavior is especially noticeable.

It seems to me that the present public emphasis on basic skills triggers these three conditions in teacher groups. It explains why a student teacher, for example, educated in principles of child development will be steamrollered into the role of reading tutor by the operating norms of the particular teacher group. Pressures to conform are strongest when the norm is of high intensity and highly crystalized. But this does not mean that there are not sufficient controls at all times. As long as a member needs or desires resources over which the group has control, as long as he seeks approval, and most importantly for teacher groups--so long as he seeks to not be criticized by the group, the member is likely to conform.

The issue is not one of placing students or beginners in schools where the teachers get along well together or where there is dissension. Janis' research suggests that high cohesiveness can in some cases be actively dysfunctional for the group as a whole. (Janis, 1972) Janis suggests that as a group becomes excessively close knit and develops a clubby feeling of "we-ness" it becomes susceptible to a pattern he calls "groupthink." The major symptom of "groupthink" is a marked decrease in the openness of the group members to discrepant or unsettling information. These interpersonal strategies, Janis argues, result in an increased likelihood that the group, in a spirit of goodwill and shared confidence, will develop and implement a course of action which is

grossly inappropriate and ineffective. When we reflect about it, this dynamic of "groupthink" can explain much of the behavior among university faculties as well.

Unfortunately, what is "good" for the individual and what is "good" for the organization are often different, sometimes mutually exclusive. This assertion becomes quite clear to anyone who compares the research and theory related to individual needs, whether physical, emotional, or cognitive, with the stated and real operation of any large complex bureaucracy. The individual's need for rest, or love, or the expression of new ideas must either be repressed or transformed into ways which are compatible with organizational norms. There is impressive literature to support this contention.

Is it reasonable to believe that a teacher education student will be improved by gaining knowledge of how a community setting, or a school organization, or a teacher group, influences his teaching? Is it reasonable to believe that a student teacher or intern who has written papers or discussed these matters with other neophytes, supervisors and faculty may be, to some degree, sensitive to these issues in future? In contrast, is it reasonable to assume that a liberal arts graduate placed into a classroom as a beginning teacher may never even have considered these matters, or if considered, may not have engaged in any systematic study of them? Finally, is it reasonable to believe that an untrained beginner will self-discover any reasons for deepening his sociological

understandings of the school as a social institution--no matter how strongly these forces may be influencing his day-to-day work?

Summary

In their professional laboratory experiences, teacher education programs approach preservice students as learners. Supervisors of these experiences, to some degree, implement the principles of learning with these future teachers. In a similar fashion, theoretic explanations of behavior drawn from sociology and organizational science also affect preservice students as they participate in direct experiences. Teacher education faculty, to some degree, make students aware of how these theories can explain forces which affect their role and work as teachers.

Placing untrained college graduates into teaching positions--graduates who have never been treated as learners in professional laboratory experiences--assumes that it is not necessary for beginning teachers to also function in the roles of learners, subject to the principles of learning. Or, it may simply assume that there is nothing to learn about the process of teaching. Similarly, the practice of using untrained college graduates as teachers assumes that theoretic knowledge for understanding the community's impact on the school, or the school's impact on teacher groups, or the teacher group's impact on the neophyte, is either unimportant knowledge or completely amenable to self-discovery.

Logic

Some of my answers to the question, "How do you know that teachers will be better if they have had teacher education?" are based on neither theory or research. It can be anticipated that those who agree with my position will know many more logical arguments to advance than I will make here, while those who disagree may consider my "logic" to be irrational or worse. The explanations which appear most reasonable to me and which I will briefly present include: why many educational and political leaders are prone to believe in the teaching competence of liberal studies graduates; why the model of teacher/scholar in higher education is not useful for lower levels of schooling; why there is objection to including pedagogic topics of obvious value in the university curriculum; why the persistent demand to employ untrained personnel is based on factors more powerful than theory, research, or logic, and will continue.

If some liberal studies graduates without professional training seem to teach as well as some teacher education graduates, has teacher education been shown to be useless or unnecessary? Why limit such comparisons to college graduates? Suppose schools could hire anyone? Might not some who had never been to college at all appear to perform as well (or better) than either liberal arts graduates, or teacher education graduates?

If some people who have never studied business management (or who have never been to college at all) become richer and more

powerful than the graduates of business schools, has the college training of business students been shown to be useless or undesirable? If some civilian boat owners do as well as some Annapolis graduates at commanding a ship, has the training of naval officers been shown to be inferior or useless?

Suppose we could place older adults--without college degrees, from almost any walk of life--into the roles of university presidents, vice presidents and deans. Are we sure that we could discern, from a few observations of their behavior, which were the Ph.D.'s? If we could not necessarily discern a high school graduate from the holder of a doctorate functioning as the President of the University of Illinois, we might be less outraged when we fail to discern, after a few observations, the difference between two bachelors level people beginning to teach in a classroom. We might also feel less certain we had discovered anything important.

Why is it considered reasonable to try to demonstrate that training effects cannot be readily discerned between a liberal studies and a teacher education graduate, but unreasonable to try to demonstrate that training cannot be discerned between a formally trained and a self-taught university administrator, corporate leader, or admiral?

There are many partial answers to this question. One such answer is that people in leadership positions (legislators, federal/state administrators, university officials, business leaders, foundation executives, etc.) tend to be college graduates

who have advanced very far in their respective fields with liberal studies backgrounds and without special training for the specific roles they now occupy. Indeed, many of these leaders point with pride to the fact that they are O.J.T. (on-the-job-trained): university presidents without a course in educational administration; corporate leaders without a course in business administration; government leaders without a course in public administration; union leaders without a course in labor law; foundation executives without a course in public philanthropy. Is it surprising, or wrong, for these individuals to attribute their successes to a sound liberal studies education? Would it be convincing to tell such people, "But think of how successful you might have become if you could function on the basis of research-based principles and techniques and not just on the basis of self-taught survival strategies?" My guess is that successful but untrained individuals are not prone to believe that they are actually less effective than they might be. A leader's willingness to reason egocentrically is related to his success. "If I did this well with a liberal studies background and O.J.T., then this is the best path for everyone."

My calculated hunch is that many of the leaders and blue-ribbon committee members who are now (briefly and temporarily) engaged in making recommendations regarding education and teacher education, are themselves consummate examples of liberal studies graduates, self-trained in their respective leadership roles, and

with no formal training in the processes of performing their day-to-day work. Is it difficult to imagine why such individuals would be prone to seriously consider the comparison of liberal studies graduates with professionally trained teachers? If such leaders had to pass through a formal selection process to become jurors and judge the value of teacher education, they would likely be excused as biased; i.e., their own "success" in spite of their lack of any professional training predisposes them to overgeneralize the values of general studies and to undervalue professional education.

In part, the willingness to utilize untrained graduates also reflects the belief that knowledge of subject matter is not only an essential requirement for teachers, but the only basis of everything a good teacher really needs. The reason this idea persists is that it (once again) reflects our own biases as college graduates. Reasoning egocentrically and reflecting upon our own experiences with college teachers, we ask a question that appears to be a reasonable one; "Why shouldn't high school and elementary teachers be made to meet the high standards of our university faculty (few of whom ever study methods of teaching and all of whom are experts in their fields)?"

The persistence of this assumption is worthy of some analysis. Following are twenty conditions of university teaching: the better the university and the more advanced the particular university course, the more likely these conditions are to be

accurate descriptors. Consider each of these conditions in terms of how it would compare to the work of an elementary or secondary teacher.

1. College teachers frequently decide the actual number of students to be allowed to enroll in a particular class/section.
2. College students are not required by law to attend.
3. Absence and lateness are the student's responsibility.
4. There is seldom, if ever, a need for direct discipline or physical management of students by faculty. (Faculty are to call the campus police if there is a "serious" problem.)
5. Faculty control the hours of instruction; they may even extend or change the time of a class or cancel a class.
6. Faculty do not assume and are not held responsible for the motivation or interest of students in the subject matter.
7. Failure is the student's responsibility.
8. Evaluation methods and criteria for grading are the course instructor's prerogative.
9. Curriculum, syllabi and catalogue blurbs are subordinate to the instructor's choice of specific content (academic freedom).
10. Instructors are not required or expected to know anything about students. (The less they know, the more they are perceived as "fair.")
11. Faculty are not expected to compensate for language deficiencies, learning disabilities, or handicapping conditions.
12. Individual help or attention is a matter of faculty discretion.
13. Individual out-of-class or after-class help, or any personal conference, is at the discretion of the faculty.
14. Readings, assignments and use of all learning materials are at the discretion of individual faculty.
15. All instructional methods used are at the discretion of the instructor.

16. Faculty need no supervision.
17. Little stamina is required for the teaching function (6 - 12 hours per week is a typical teaching load).
18. Teaching is an amenable, pleasant activity. Sitting, standing, drinking coffee (even smoking) are frequently permitted.
19. Individual faculty may select substitutes or guest lecturers. They may skip a class to go to a conference. They may assign an assistant to teach a class.
20. Individual faculty frequently determine what tests or experiences will exempt students from "their" courses.

There are easily another 20 conditions of college teaching which can be cited to support the contention that college instruction differs significantly from teaching on the elementary or secondary level. There is also substantial evidence that college students and faculty themselves do not believe that faculty members are necessarily effective teachers. But in order to dramatize the naivete of using college faculty as a model, I am willing to make the remarkable assumption that college teachers are all satisfactory teachers. Assuming that most college instruction is sound because it epitomizes the instructor's expertise, what would justify using the work of a college instructor as a basis for comparison with teachers in elementary and high schools? Is it reasonable to compare people who are locked-in as bureaucratic functionaries (i.e., teachers in schools) with university faculty whose role epitomizes the freedom to do what one pleases and get paid for it? Is it reasonable to compare an individual who must discipline, motivate, and bear responsibility for what students learn with an

individual who can simply eschew such tedium?

Those who point to scholarship as everything a teacher really needs must deal with this issue: On what basis can the work of a scholar be compared with that of a teacher in elementary or secondary school? To those who are to any degree familiar with the day-to-day work demands of a classroom teacher, it is likely that there is no role further removed from the life of a scholar!

We also know that many universities value research and publication more than teaching; the better the university, the greater the emphasis on research. Is it necessary to prove the contention that many great teachers do not ever make tenure in our leading institutions? How can such a situation be a model for advocating that teaching would become respectable if only it were based on genuine scholarship?

But obviously, the personal predispositions of successful leaders, or the models of the college teacher/scholar are not the only reasons it has once again become popular to utilize liberal studies graduates as teachers. Another partial explanation for using untrained graduates to teach, but not permit them to function in other professional roles--roles they could perform as well or better than many of the present incumbents--is that we do not believe that untrained teachers are a risk--certainly not the difference between life and death. If some untrained graduates prove to be not as able as others, it is viewed as an unfortunate occurrence, but not as a matter of the highest priority in the lives

of children or youth. It is not a matter equal in importance to being hit by an unlicensed driver, or having a serious illness diagnosed incorrectly. Those who are prone to advocate the use of untrained teachers are not overly sensitive to the possibilities of any debilitating, long-term effects. The willingness to utilize untrained teachers reflects an assumption that teachers' potential impact (positive or negative) is not likely to have any important consequence for one's future life opportunities. There is, however, mounting experiential evidence that the willingness as well as the ability to engage in lifelong learning will, for many, be the difference between a productive, fulfilled life and a vacuous, unsuccessful one and that the experience of having had even a few effective teachers can be the critical difference.

Thus far we have cited the proclivity of leaders to reason egocentrically about job preparation, their commitment to the college teacher model and their disbelief in teaching as a life and death occupation. There are other explanations for the widespread willingness to use untrained teachers: some of these are well intentioned, such as the need for more math/science teachers; others are less well intentioned, such as school superintendents who distribute emergency licenses to friends, relatives and political supporters in much the same way as any political hack distributes patronage.

There is also the pressure which comes from increasing numbers of liberal studies (and other) graduates who have not yet

established their career lines or entered a graduate school and who simply need a job for a year or two.

The growing number of private schools is another source of influence. As more and more uncertified people actually teach, the need for professional preparation will inevitably be questioned by more people.

Professional educators feel threatened by these rationales and are puzzled about their inability to make others understand the obvious logic of their case. How can any reasonable objection be made to future teachers learning something about discipline and class management? After all, public opinion polls constantly repeat the finding that this is the public's greatest concern. (Gallup, 1984) Similarly, how can there be any reasonable objection to future teachers knowing something about the nature of children/youth, or how they learn?

There are two responses to these apparently reasonable demands from teacher educators: First, opponents of teacher education argue that the professional programs are so bad that these promises for delivering all this necessary pedagogic knowledge are not delivered upon; and second, that there is a limited number of courses which can be offered in any four-year curriculum and that no matter what the rationale for more pedagogy, it will drive out even more necessary liberal studies. Professional educators have labelled this problem "living room" or "breathing space" and have proposed a fifth year for teacher education. While a fifth year is

desirable, it will not solve the competition between pedagogy and liberal studies because the fifth year will inevitably be devoted to intern teaching and will have limited opportunity for additional coursework. The proponents of liberal studies contend that even if a fifth year were added, liberal studies, not pedagogy, should supplement any internship or full-time teaching. They point to the fewer number of academic courses taken by teachers (as compared to liberal studies graduates) and attribute the lack of excellence in current schools to a lack of academic subject matter in teacher education.

According to a recent summary of courses in academic and in professional areas, the Educational Testing Services (1982) notes that there has been a decrease in pedagogy coursework and an increase in arts and science courses.

When all the arguments shake down, the overriding reason for using liberal studies graduates is not based on logic at all, and is only in part attributable to the foregoing contentions. The most important reason for using liberal studies graduates is need. Since 1800 when the Lancasterian method was adopted in New York City, because one master teacher could teach 1,000 pupils by using monitors, there has been a persistent need for teachers in large urban areas. Lack of teacher education has never prevented large numbers of college graduates from temporarily "covering" classes as they pass through the profession. Prior to the beginning of school in September (1984) New York City, Chicago, and Los Angeles revealed

varying needs for between 1,800 and 3,500 teachers. In some cases, whole states (e.g., New Jersey) implemented plans to meet needs for teachers with unprepared graduates. And the number of teachers needed will increase during the year as many of these beginners resign. The science/math needs which have persisted throughout this century have simply overlayed this endemic situation and will continue to exacerbate it.

The rationale of need is used by superintendents, state certification officers and other professional educators just as frequently as it is used by those eschewing teacher education. The assumption is that anybody (literally, any body) is better than dividing a class among other teachers, using mediated instruction, using monitors, or having unsupervised study. I would hypothesize that if we examined the need for dental care among urban children and youth we would find as great an unmet need as we find for teachers. Our notion of professional standards, however, prevents us from using liberal studies graduates to provide these needed dental services, when, in truth, many of these graduates might do as well or better than beginning dentists. There is also the feeling that we wouldn't want to injure children/youth in irreparable ways. The reason we would not permit a college graduate to inject some novocain or pull a tooth (behaviors that are successfully performed by illiterates all over the world, every day), but would permit, even encourage, an untrained individual to become involved with a child's mental and intellectual development, are not always

logical. We can be certain, however, that while need has been and remains, the primary rationale for circumventing the teaching "profession," it has not succeeded as a rationale for circumventing other professions. An operational definition of a profession might, therefore, be stated as follows: If need, even emergency need, is not generally accepted as sufficient justification for untrained, unlicensed individuals performing the services, then the services may be considered to be of a professional nature.

Summary

This section began with the assumption that there are plausible arguments which might clarify the debate between teacher educators and those who see little value in it. Some of the problems of leaders who reason egocentrically were cited. The use of college teaching as a model of excellence for lower schools was analyzed. The issue of the finite four-year curriculum was discussed as one basis of professional/academic competition for university courses. The longstanding argument of "need" was cited as the fundamental motivation for using college graduates without teacher preparation. Almost all the arguments commonly put forward by both sides as "logical" may actually be based on egocentric reasoning, personal predispositions, or unreflected-upon responses to a predictable historic need. One may wonder, therefore, whether the "logic" of any of these arguments holds the power to change beliefs which are held on idiosyncratic bases.

Research

This section seeks to answer four questions: What evidence is there that teacher education makes any difference? Is there evidence for believing that skills taught in teacher education can affect the learning of children/youth? Do follow-up studies indicate any value of professional education?

A recent study by Cornett compares teachers with arts and science backgrounds and teachers with teacher education backgrounds in three southern states. (Cornett, 1984) Because some of the general media have reported this study as proving that those with liberal studies backgrounds do better than those with professional preparation, it might be useful to discuss this report in some detail. The researcher, while more factual than the media, does draw some conclusions which are worthy of reconsideration. Following is a brief analysis of the four parts of the study and an evaluation of its final discussion section.

The first of the four studies is based on a sample of 267 provisionally certified arts and science graduates teaching in Georgia who had passed the Georgia Certification Test. Only 18 were in their first year of teaching. 249 of these provisionally certified arts and science teachers had been teaching one to three years. The test items reflect the curricula of the Georgia public schools and cannot be assumed to test the liberal studies or the professional studies knowledge of the subjects. The items were not drawn from some universe of knowledge that purportedly represents

the university programs of either group. The fact that non-teacher education graduates scored slightly higher than teacher education graduates, at the bachelor's level, but lower than the teacher education graduates at the master's level, might be explained in numerous ways other than the fact that one group had a liberal studies college program and the other group had a professional program. Since the test measures knowledge of the Georgia schools curriculum, it may well be a measure of the degree to which teachers with one to three years of teaching experience learn what is in the stated curriculum. The finding, therefore, that teacher education graduates score higher than liberal studies graduates in math and science should not convince anyone that teacher education graduates know more math and science than other graduates. It may simply reflect that in the course of their teaching experience they have become more familiar with the Georgia curriculum. A similar interpretation might be placed on the finding that non-teacher education graduates scored higher in social studies, or humanities. As Cornett states, " ... the test was designed to test minimum competencies and its content is no more complex than the content of the Georgia public schools (1984, p. 21). A more interesting question here might have been: What is the relationship, if any, between all teachers' knowledge of the stated school curriculum, what they actually teach, what their students actually learn, and what their students are tested on? In any event, it would have been just as logical to divide and compare the teachers on the basis of

their family income, age sex, I.Q., or reading level as it was to compare them on the basis of their college preparation.

The second part of the study compared two groups in Louisiana who had passed the National Teacher Examination--those with temporary and those with regular certification. It is important to note that "the population was composed of all teachers who received certificates to be employed in the state of Louisiana from July, 1982 to July, 1983; all had met the minimum NTE scores necessary to be certified." (Cornell, p. 23) In the group of temporarily certified teachers the average number of Education courses taken was 9.5 hours overall and 13 hours for those taking the elementary education portion of the test. A random sample of 105 regularly certified teachers, who were graduates of teacher education programs, was drawn to serve as the comparison group.

The Weighted Common Examinations Test (WCET) which was used assessed professional education, social studies, written English, science and math. A comparison was made between composite scores for all teachers in the two groups and for teachers with no Education hours. Temporarily certified teachers and teachers with no Education courses scored higher in composite scores than the regularly certified teachers. On the elementary education area of the test--a test of professional content--the regularly certified teachers scored higher. The researcher concludes that the reason temporarily certified teachers may have outscored regularly certified teachers on composite scores was that "General education

or specialized content may make up for the lack of education courses (on a test weighted more heavily toward general education and specialized content), or possibly there were undetermined differences among the groups. It is interesting to note that for the more specialized information (professional content) ... the teachers who had not completed a teacher education program (an average of 13 hours of Education) did not score as high as those who had." (Cornett, p. 27)

Again, it must be noted that this is not a comparison between liberal arts graduates and teacher education graduates. It compared temporarily certified teachers, who had already passed the N.T.E., with regularly certified ones. Its findings would support the contention that the more Education courses subjects have, the higher their scores on professional content areas of the tests used.

The third part of the study reports a comparison of classroom performance by liberal studies graduates and teacher education graduates in a metropolitan school district in Georgia. The number of provisionally certificated subjects was 21; 18 were secondary teachers, 11 were in their first year, but the group averaged 2.3 years of experience. The comparison group included 27 subjects, 13 secondary and 14 elementary with an average of 7.3 years of experience. A second sample of 21 teachers with 5.2 years of experience was also drawn.

Both samples of teachers with regular certificates scored higher in performance than those with provisional certificates. In

fact, most of the regularly certified teachers received perfect or near perfect scores on their competencies while the scores of those with provisional certificates were widely distributed. The dispassionate researcher comments that "The principals may tend to rate an experienced teacher high on all categories because of other factors." (Cornett, p. 32)

The fourth part of the study compared test scores and performance between provisional and regularly certified teachers in North Carolina. Those with provisional certificates (N = 191) were employed at some point in a five-year period and included 31 with less than a bachelor's degree. A random sample of 348 regularly certified teachers was drawn as a comparison group. The North Carolina Department of Instruction requested on-the-job evaluations of these 539 teachers. 292 were returned. The return rate for the provisionals was 59 per cent and, for the regular teachers, 51. In addition, N.T.E. scores were used, although some unknown number of scores were not available.

Findings indicated that the mean scores for all performance evaluations of all teachers did not differ for the two groups. Years of experience did not seem to matter and almost half of the teachers were evaluated at the highest levels. Less than 3 per cent scored in the lowest range. The researcher concludes: "The results call into question whether or not these instruments are discriminating enough to reveal real differences that might occur between teachers, regardless of how they were prepared."
(Cornett, p. 41)

Regarding the written examination, the researcher concludes: "... arts and science graduates outscore the teacher education group to a slight degree; (but) the scores should be interpreted as roughly equivalent." (Cornett, p. 41)

In the Discussion Section of these four related studies, the researcher makes the following points:

"Graduates of arts and science programs who had provisional or temporary certification generally outscored teacher education graduates in tests of general knowledge and professional education ... (i.e., where 40 per cent of the score was weighted for professional education content.)

The Georgia data revealed a greater difference by level (bachelors, masters) than by the type of degree, although at the masters level, teacher education graduates outscored arts and science graduates.

Teacher education graduates in elementary education outscored those who were provisionally certified in Louisiana.

The differences for the elementary and secondary fields may indicate similarities in terms of content focus at the secondary level for both teacher education and for arts and science graduates.

The data from these studies indicate few differences in on-the-job performance.

The data from Georgia Metropolitan district do indicate that teachers who are regularly certified receive a better rating than those provisionally certified.

The North Carolina data revealed no real differences.

Evaluation instruments have not been validated against student learning." (Cornett, pp. 45-47)

These are surely different points than those in the popular press.

After reading this report a colleague of mine wrote the following reaction. "We first have to establish that we have comparable samples. We know that socio-economic status levels influence performance on standardized tests. The best estimate is that SES accounts for 25% of the variance. So, if we were to compare Education students with liberal arts students, have we controlled for SES? If we compare certified teachers with people who enter teaching without certification, have we controlled for SES? I ask this not only about SES, of course, but sex, race and previous achievement records. The Southern Regional Education Board report does not once describe the samples it is comparing. There are so many (possible) "explanations" for the differences or lack of differences in the findings--that the data themselves are almost dangerous. ... I worry about contributing to a data base without providing descriptions of the samples and without delineating how the samples were selected." (Kaths, 1984)

My interpretation of what the research really found out might include the following:

1. A test of school curriculum content is not a test of the content in either an arts and science curriculum or a teacher education program. It tests who has learned the school curriculum.
2. Arts and science graduates who: 1) self select to enter teaching; 2) who are able to pass (minimum) state tests of certification; 3) who actually teach for a few years; 4) who have inevitably received some on-the-job supervision and help

from administrators and other teachers, will begin to look (and test) more and more like regularly prepared teachers.

3. If you have the state department of instruction write to a principal or a superintendent who has hired a liberal arts graduate for an evaluation of that teacher, he will either not respond or send back a laudatory evaluation in order to protect his decision.

Finally, it should be noted that many teacher educators claim a fifth year program is the best way to prepare teachers. These programs involve allowing liberal arts graduates with good academic backgrounds who self-select themselves, to begin as regular teachers and to simultaneously take a few professional courses. There must also be provision for regular on-the-job supervision. I have a very strong suspicion that this type of person, who many of us believe makes the best teacher, is represented quite heavily in the Cornett studies. Instead of labelling them "fifth-year teacher education students," however, they are designated "liberal arts graduates" because they are in diverse schools and colleges and not in one, identifiable program. While I cannot know the exact number of these individuals, neither does Cornett. Based on the study report itself, I would estimate that almost all of the Cornett's "liberal arts" teachers have taken or are taking some education courses each year, and that they are receiving regular supervision. I would call these persons "interns."

It may well be that, in future studies, liberal arts graduates can score higher than education graduates on written and performance tests, but to conclude that we would need samples of new

graduates from both groups, who are matched and who are "uncontaminated" by on-the-job experience, help, or concurrent professional coursework. There is no question in my mind that, in future, there will be such well done studies which do show that some liberal arts graduates, prior to any teaching experience or coursework at all, do better in practice and score higher on state examinations than some teachers with professional education and experience. No present study has done this.

"One explanation for this dilemma is that so many of the important teaching skills, or dispositions, are not those associated with teaching per se, but are associated with being thoughtful, being kind, being sensitive, being well-read and being energetic. ... We could write an examination for teachers that tested arcane knowledge, but such items would be ridiculed both by the public and by our colleagues (and us) as being irrelevant and, in effect, dishonest." (Raths, 1984)

Thus far, what evidence there is generally supports the contention that teacher education does make a positive difference. Studies which compare on-the-job performance of regularly prepared teachers and those with little or no teacher education very clearly favor those who have completed a teacher education program. Two exceptions are a study in which lay persons (e.g., an electrician) taught a unit lasting a few hours to high school students, who then scored higher (not significantly) than students taught by regular teachers. (Popham, 1971) Another study reported that students

taught by student teachers (who had had education courses but who were inexperienced in teaching) taught pupils more than experienced teachers (Bausell and Moody, 1972).

In New York State, principals using a rating scale found that provisionally certified teachers did less well than regularly certified ones (LuPone, 1961). In Florida, first-year teachers who had completed teacher education coursework were rated higher than those who had not by educators and lay persons (Beery, 1962). Another Florida study supported the contention that more positive reports from principals (and higher MTAI scores) increased directly with the extent of teacher education (Gray, 1962). Again in Florida, a study of first-year elementary teachers found that pupil achievement gains were significantly related to hours of Education courses (Hall, 1964). In another evaluation using administrators' evaluations in Florida, professionally certified secondary teachers were rated higher in teaching skills than those who were provisionally certified (Gerlock, 1964). In a longitudinal study in Georgia, regularly certified teachers were rated higher than those provisionally certified on the basis of self-reports, pupil perceptions and actual classroom performance (Bledsoe, Cox, Burnham, 1967). Using MTAI scores, intern certified teachers scored higher than those provisionally certified (Mette, 1971). In a study of beginning teachers, principals rated arts and science and professional graduates no differently in knowledge of subject matter, personal characteristics or planning, but teacher education

graduates were rated higher in communication skills and consideration of pupils (Copley, 1975).

On the basis of research available, I would say there is some systematically collected data to support the contention that teachers who have been professionally prepared perform in ways which are rated higher by principals, lay persons, and children/youth. There is little data which connects teacher preparation with pupils' achievement scores.

To keep dealing with this question of whether liberal studies graduates teach as well as teacher education graduates may be a fruitless pursuit, unless the goal is to convince the individual who holds the most extreme position--that liberal studies is all that is necessary. The more fruitful research questions relate to how much teacher education, for whom, under what conditions? The essential research support for some form of teacher education does not come from the studies comparing various graduates. It is based on the following syllogism: teacher education programs teach selected skills, student teachers can learn these skills, these skills correlate with pupil learning outcomes.

The research evidence supporting the current knowledge base is one place to begin. There are numerous summaries of "the effectiveness literature" which seeks to specify teacher actions which can be directly connected to pupil learning.

Leading researchers now believe that a substantial knowledge base has been established regarding several critical

dimensions of teaching: active learning (also referred to as direct instruction), classroom management and teacher expectations (Good, 1981) (Peterson and Walberg, 1979). There is substantial and increasing evidence that pupil achievement can be related to specific teacher behaviors in each of these three realms.

While teacher educators have always taught specific behaviors and skills to neophytes (even at the risk of being denigrated as mere "how-to" pedagogues), they did not have the assurance they now enjoy that specific teaching skills are indeed related to particular pupil learnings.

A related trend has developed simultaneously among teacher educators who have become more systematic in ascertaining that their university based instruction has some effect on the behavior of their students. In analyzing why some teacher education programs fail, Borg proposed four reasons: emphasis is on telling, rather than doing; instruction is general, rather than specific; effective models are not provided; effective feedback is not provided (Borg, 1970). Based on these contentions, microteaching was developed as an alternative approach to teacher education. Active student practice and demonstrated competence of specific skills was proposed as a substitute for some of the traditionally structured coursework.

While not every teacher education program used micro teaching as such, it was a symptom of this trend to emphasize specific skills with future teachers. The advent of the inexpensive video camera facilitated the use of video recording in university

simulation laboratories as well as in real classrooms.

As Research Editor, Reviewer, and Editor of the Journal of Teacher Education between 1968 and 1984, I would estimate that at least 20 articles were submitted for review each year which followed a pattern of demonstrating that specific bits of teaching behavior could be taught. A group of teacher education students would be evaluated at the beginning of a course or program as not having "X" skill. The professor (who is also the writer of the article) would then teach the particular skill or objective to the students. Results inevitably indicated that the students who were taught the skill or objective learned it. In some cases there was a comparison with others not taught the skill, but in most cases the comparison was to the students themselves. While I rarely advised acceptance of such "research" for publication, I have no question that teacher educators can successfully teach their students a range of effective instructional skills. It seems to me that reasonable analysts would accept this as a reliable occurrence.

The real research basis of teacher education, therefore, has little to do with comparing liberal arts and teacher education graduates. It has much more to do with identifying basic teaching skills which are related to the learning of children/youth, and then demonstrating that these skills can be taught to teachers. The assumption may then be made that those who complete professional programs and have learned these skills have a choice; they may use these skills in their subsequent teaching practice or they may not.

Those who have not learned these specific skills do not have such a choice because the majority of these skills are neither the result of common sense or amenable to self discovery.

An additional piece of the research argument in support of teacher education deals with follow-up studies. Almost every accredited teacher education program follows up some of its graduates who are teaching and secures their evaluation of their preparation. These follow-up studies show great consensus: teachers in practice feel they should have had more direct experience, more preparation for working with handicapped students and more specific preparation for a range of day-to-day problems. Practicing graduates rarely request either more basic knowledge in professional education areas (e.g., more learning theory) or more liberal studies (Haberman, 1974) (di Voss, 1981). Critics of this follow-up literature may, of course, point out that this may be precisely what's wrong with present schools, i.e., too much teacher concern with low level, practical issues and not enough focus on subject matter. The possibility does exist, however, that the teachers' perceptions are valid; that they have had enough academic subject matter but not sufficient teaching skills to let them use this knowledge.

As more urban areas and whole states use increasing numbers of uncertified teachers, there will be increasing opportunities to continue this research. It should be required of all these efforts

that beginning teachers' performance and the on-the-job training that is offered be systematically evaluated. These should not simply provide comparison studies among beginners but should help us to evaluate the variety of teacher education efforts.

Summary

There is some evidence that provisionally certified teachers who have had varying amounts of education courses and up to four years of teaching experience score as high or higher than some regularly prepared teachers on some tests of school curriculum content, academic subject matter and professional knowledge. The label "liberal arts" graduates as applied to provisionally certified teachers is usually misleading since it may lead to the assumption that these are individuals who have had no Education courses, no teaching experience, or no supervisory help. In truth, these populations may be self-selected liberal studies graduates who have already passed a National Teachers Examination and who have experienced all three forms of teacher education cited above.

There is much evidence to support the contention that regularly certified teachers perform at a higher level than those with provisional certification. This evidence is usually based on the ratings of principals, colleagues, the public and students, and not on achievement scores.

The basic research argument in support of teaching has successfully demonstrated two things: it has established that there are behavioral skills of teaching which relate to pupil achievements

and it has been demonstrated that teacher education programs can teach these effectiveness behaviors to future teachers.

The follow-up literature, which has studied practicing teachers' perceptions of their teacher education programs, indicates a continuing demand for more practical teaching skills.

Hiring of unprepared beginning teachers in increasing numbers should expand what is known about these groups and the efficacy of various kinds of on-the-job teacher education.

Expert Opinion

In comparing the position of those who advocate with those who eschew teacher education, it is possible to compare teacher education programs as they should be offered with liberal studies programs as they are actually offered. The converse is also possible--to compare the knowledge gained by graduates of liberal studies as such programs should be offered with teacher education programs as they are actually offered. The discussion which follows assumes the best; that both types of programs are successful and that graduates are realizing the learning objectives which were intended in their respective curricula.

The following statement, written in 1885, argues that there can be no reasonable expectation that an individual in the role of university student can ever be prepared for guiding the learning of others unless he "consciously reflects" upon what is happening to him.

"There can be no doubt that the teacher should have an accurate knowledge of the subject he professes to teach, and especially for this, if for no other reason--that as his proper function is to guide the process by which his pupil is to learn, it will be of the greatest advantage to him as a guide to have gone himself through the process of learning. But, then, it is very possible that although his experience has been real and personal, it may not have been conscious--that is, that he may have been too much absorbed in the process itself to take account of the natural laws of its operation. This conscious knowledge of the method by which the mind gains ideas is, in fact, a branch of Psychology, and he may not have studied that science. Nor was it necessary for his purpose, as a learner, that he should study it. But the conditions are quite altered when he becomes a teacher. He now assumes direction for a process that is essentially not his but the learner's; for

it is obvious that he can no more think for the pupil than he can eat or sleep for him. His efficient direction then, will mainly depend on his thoughtful conscious knowledge of all the conditions of the problem which he has to solve. That problem consists in getting his pupil to learn, and it is evident that he may know his subject, without knowing the best means of making his pupil know it too, which is the assumed end of all his teaching; in other words, he may be adept in his subject, but be a novice in the art of teaching it. Natural tact and insight may, in many cases, rapidly suggest that knowing a subject is a very different thing from knowing how to teach it. This conclusion is indeed involved in the very conception of an art of teaching, an art which has principles, laws, and processes peculiar to itself. (Payne, 1885, p. 112)

Advocacies such as these were powerful forces for change.

Higher education then spent the next 75 years developing the fields of psychology and educational psychology. By 1961, almost every practicing teacher had studied theories and principles of learning, as well as observed and practiced them. The arguments seem to have reversed themselves. Now the problem of knowing academic subject matter well enough was advocated by a leading psychologist as the best way to lead pupils to intuitive (higher) forms of learning.

"...The warm praise that scientists lavish on those of their colleagues who earn the label intuitive is major evidence that intuition is a valuable commodity in science and one we should endeavor to foster in our students. The case for intuition in the arts and social science is just as strong. But the pedagogic problems in fostering such a gift are severe ... It requires a sensitive teacher to distinguish an intuitive mistake--an interestingly wrong leap--from a stupid or ignorant mistake, and it requires a teacher who can give approval and correction simultaneously to the intuitive student. To know a subject so thoroughly that he can go easily beyond the textbook is a great deal to ask of a high school teacher. Indeed, it may happen occasionally that a student is not only more intelligent than his teacher but better informed, and develops intuitive ways of approaching problems that he cannot explain and that the teacher is simply unable to follow or

recreate for himself. It is impossible for the teacher properly to reward or correct such students, and it may very well be that it is precisely our more gifted students who suffer such unrewarded effort. So along with any program for developing methods of cultivating and measuring the occurrence of intuitive thinking, there must be some practical consideration of the classroom problems and the limitations on our capacity for encouraging such skills in our students ... (Bruner, 1961, p. 68)

It is clear that individuals who qualify as "experts" have taken both sides of the issue on employing college graduates who have not had teacher preparation as teachers. It is also clear that individuals from both groups who have seriously and honestly considered the problems of making teachers more effective, inevitably move closer together.

After the passage of the Professional Development Act of 1967 and after infusing Schools of Education with enormous amounts of federal funds, the U.S. Office of Education declared 1970 "The Year of the Liberal Arts." A conference, then a volume, was produced which was intended to, once and for all, lay out all the issues of the confrontation between academics and educationists and resolve them. (Bigelow, 1971) In print, however, the liberal arts professors sang a paean to the new forms of liberal studies which were being developed to provide greater life meaning to students who had become more socially conscious. The teacher educators, for their part, called for greater integration between liberal studies, professional studies and school practice, as the means of addressing the new social realities. How surprised (disappointed?) both groups might be to see their successors (in 1984) still rearguing these

same issues but coming to an opposite conclusion: that only the other side's bailiwick is in need of a drastic overhaul.

In reconsidering this long standing debate, a few individuals have made contributions which have satisfied both the academics and the professional educators. The nature of their contribution has been such that the academics could rightly claim that well taught liberal studies courses would teach students these universal principles, while professional educators could argue that a sound teacher education might also teach those same things. Louis Rath's "Modes of Thinking" is one such contribution. (Rath, 1962) The ten modes described in terms of children's thinking are: comparing, summarizing, observing, classifying, criticizing, problem solving, analyzing, imagining, planning and interpreting data. Both sides see their particular curricula as preparing students who have learned these modes of thought, who can recognize them in others, and who can foster them.

More recently researchers have developed exhaustive lists of behaviors which are intended to guide universities in assessing their students' skills--students in all schools and colleges. While referring to these skills as "interpersonal," they appear to be very much (suspiciously?) like pedagogic functions: "mentoring, managing, leading, negotiating, supervising, instructing, consulting, entertaining and persuading." (Breen, Donlon, Whiteker, 1975, p. 101-103)

Under nine categories, 102 specific skills are listed: for example, under mentoring is "asks questions,"; under managing is "sets goals and performance standards"; under leading is "motivates"; under negotiating is "reconciles opposing viewpoints"; under supervising is "assigns tasks"; under instructing is "uses demonstration and role playing to teach subject matter"; under consulting is "gives information and ideas based on experience and training"; under entertaining is "gives support and assurance"; and under persuading is "describes and explains advantages of a program." (Breen et al, p. 103)

There can be no question that these specifications will serve as precursors for developing a standardized test for liberal arts graduates to evaluate the efficacy of liberal studies programs. While all 102 "interpersonal skills" cannot be listed here, it should be clear from the nine examples cited above that the goals of many liberal studies are, in effect, becoming very much like the behavioral objectives or competencies of many teacher education programs.

It may very well be the case that a substantial and growing portion of subject matter that was developed as "professional" is now also found in the liberal studies curriculum and vice versa. This is not a criticism: it is clear to me that many skills of teaching are superb tools for interpersonal relations, parenting, and communicating.

In many universities the decision of which college, or curriculum, a course is offered in may be explained by institutional history or politics rather than by any systematic planning for the clear division of subject matters. Child development (or child psychology, or child study) can be found in several colleges within most universities. Similarly with adolescent development. Sociology courses in general/liberal studies frequently deal with much of the same content as multi-cultural or human relations courses in Education. Linguistic courses in liberal studies frequently deal with much of the same content as language arts courses in Education. This kind of overlap is also not unheard of in testing and mental assessment, the everyday uses of computers, or in research methods. In areas such as history and philosophy, there is a clear overlap in much of the content offered to liberal studies students and to Education students.

One conclusion that might be drawn is that this overlap is undesirable--i.e., an inefficient way to run a university. Another conclusion might be that much of what was formerly regarded as professional subject matter has become so widely accepted that it is generic; every educated person, in effect, needs to know something about mentoring, managing, leading, negotiating, supervising, instructing, consulting, entertaining, and persuading (provided we label them interpersonal skills, not pedagogy). If there continues to be an increasing drawing together (overlap) of liberal and professional studies, there should be no reason to expect marked

differences between the scores of many liberal studies graduates and their professional counterparts on tests of teacher competencies.

Summary

Future teachers need more than learning "about" psychological principles of learning or other content areas which have come to be accepted as fundamental to pedagogy. The role of college student, whether in liberal studies or professional programs, requires students to consciously reflect upon the process of learning as they go through it. It is this awareness of knowing how they have learned which is the basis of their guiding the learning of others.

Many of those experts whose scholarship now forms the basis for pedagogic study have come to recognize the great teaching potential of graduates with strong subject matter expertise--particularly in the teaching of higher cognitive skills to all pupils and in the teaching of the gifted.

The trend to increased evaluation of liberal studies programs has led to greater objectivity in the way many college programs now state their goals and objectives for students. What seems to be revealed by this trend is that many liberal studies objectives are almost the same as professional studies objectives--with different nomenclature. It may well be the case that many liberal studies students are now inadvertently preparing for teacher competency exams by the study of pedagogic skills and knowledge under different labels.

Experience

Experiential evidence is usually regarded as less powerful than research (systematically collected data), theory, or expert opinion. (Power of knowledge refers to its ability to explain present behavior and to predict future behavior.) In teaching, however, it may very well be the case that the cumulated wisdom of teachers and teacher educators frequently provides answers to, "How do you know that?," which are more powerful than the other forms of knowledge.

The problem with experiential knowledge in settling controversies (e.g., Liberal arts graduates can teach as well as those with professional preparation.) is that experience has the greatest impact on the individuals who have had it and doesn't seem to transfer easily to others who are experience-free. For example, a master classroom teacher with 25 years of experience as a cooperating teacher may state, "I've seen dozens of bright, highly academic new students/interns who show up for their first day of teaching and they are simply lost ... they don't even know where to begin." Such a statement is likely to have little impact on those political or educational leaders who begin from the premise that academic excellence in liberal arts is the basis for everything one needs to know about teaching: such leaders might raise questions related to the master teacher's own academic background before relying on his judgment regarding the behavior of students or interns. A second problem is that some individuals have consciously

reflected upon their experience while others have simply lived through them.

The ultimate criterion for evaluating knowledge based on experience comes down to evaluating the quality, judgment, and wisdom of the individual(s) whose experience is being utilized. In those cases where experience is accepted as valuable, it is an acceptance of the individual's expertise as much as his experience. To be perceived as valuable, experience must come from one perceived to be a connoisseur. Many teacher educators have been recognized as connoisseurs regarding the processes involved in preparing others to teach; few school supervisors or master teachers are recognized as connoisseurs of these processes. Hopefully, the contentions which follow are those of a recognized connoisseur who has integrated and reflected upon the experiences of those who are less recognized.

In 1964-65, while serving on a task force of a Ford Foundation Great Cities Urban Teacher Education Project, I was also directing and studying various intern and fifth year programs for inducting liberal arts graduates into teaching. Much of this work was devoted to specifying as precisely as possible, the nature of the professional preparation that could be given to liberal arts graduates in a summer session and then have them begin to function effectively in classrooms in Fall. A second question we dealt with was, "How much and what kind of supervisory help should these beginners be given?" A third question was, "What kind of university courses should liberal arts interns take in future?" Then, as now,

"need" required that thousands of liberal arts graduates be used as teachers in urban areas all over America. There were three conditions, however, which distinguished our situation then from the present condition. First, there was an increasing need for teachers and most well prepared, fully certified teacher education graduates were self-selecting to work in other than urban school systems. Second, expanding Schools of Education and the fledgling teachers' unions were not overly concerned about fifth-year programs. Third, our liberal arts graduates, while paid as beginning teachers, were part of a university fifth-year program and not hired by school districts or the State as unaffiliated individuals.

In spite of fifth-year efforts nationally, these programs did not produce the numbers of teachers needed in urban Schools. Teacher Corps., which was based on our Wisconsin model, also did not provide the numbers needed.

As part of our Great Cities work, we met regularly in Chicago to discuss how to increase the numbers of liberal arts graduates into teaching. Evelyn Carlson, then Associate Superintendent of the Chicago Public Schools, reported to us that between September, 1964 and January, 1965 approximately 1,000 liberal arts graduates were simply hired as Emergency Teachers and placed into Chicago classrooms. By the end of the school year (June, 1965) there were approximately 165 of these unprepared graduates still in the classroom. No follow-up data was kept on what ultimately happened to these individuals. There is no reason

to believe that Chicago and other urban areas have not been following similar hiring practices for the last 20 years.

These were not experiments or demonstrations to be shared publicly. At the time, with the growth of the Civil Rights Movement, the school officials were understandably chary: they did not want to be accused of experimenting or giving second best to minority children/youth. Today, similar practices might be written up by the media as: "A forward-looking school system implements the national demand for excellence."

In effect, simply putting graduates out to teach without making them part of a fifth-year or other continuing education program uses the children/youth as screening devices. Unfortunately, on-the-job screening does not weed out those lacking in potential and leave in those who will then become good teachers. On the basis of 25 years of experience with intern programs in several states, I would hypothesize that the majority of the 165 who weathered 1964-65 in Chicago (and those who "stick it out" without regular supervision, coursework or training everywhere else) are the "strong insensitives." This characterization is derived from a psychological profile developed to assess trainees in communication tasks. (Hunt, 1965)

We found early on, and have corroborated the experience repeatedly in a variety of urban settings, that the personal dimensions of strength and sensitivity could predict which interns would be effective and which ones would stay on in spite of their

lack of effectiveness. In sharing experiences with other teacher educators trying to help beginners in urban schools at that time (e.g., Gerald Weinstein, Syracuse Public Schools), we found they were having similar experiences. The description of these two predictive personal dimensions are as follows:

1. Strong-sensitive: This person can maintain a consistent, orderly structure in which learners can operate, and at the same time indicate that he is constantly aware of what is going on with the pupils. The pupils are treated as important and respected persons with feelings, attitudes, and experiences that are worthy of attention.
2. Strong-insensitive: This person can keep a class in order and maintain his authority, but he never can really see, hear, or experience the pupils. It is pretty much a case of him against the pupils, and the stronger will win.
3. Weak-sensitive: This person holds the interests and needs of the child foremost in mind, but is unable to establish the degree of order which will allow him to capitalize on his sensitivity.
4. Weak-insensitive: (This person is unaware of what is happening and couldn't do anything about it if he were.)
(Fantini, Weinstein, 1968)

Subsequent research has substantiated our view of the strong-sensitive as a teacher with "with-it-ness" and skills of overlapping. (Good, p. 3)

With programs in which there was little or no supervision, or where the related coursework was insufficient, it was the strong-sensitives and weak-sensitives who quit, the weak-insensitives who were eased out, and the strong-insensitives who remained. In effect, my experiences have repeatedly revealed that simply hiring liberal studies graduates and putting them out as

teachers will be an effective means of using the situation itself as a screening device for recruiting and retaining people who can control urban classrooms, without relating to urban youth.

The current emphasis on improving the conditions of work are most germane here. While increased salaries are a vital need, they will not solve this total problem. The strong-sensitives who are needed to remain in teaching want, above all, to see their pupils learn: they are concerned about all the conditions of work in the school environment which impede or facilitate teaching and learning. These conditions are well known and have been carefully documented in the effective schools literature. (Raiche, 1984)

This conclusion is based on my experience with liberal arts graduates having the academic backgrounds to enter graduate schools in several of our leading universities (Columbia, Rutgers, Wisconsin).

Summary

A conceptual distinction is made between fifth year university programs for preparing liberal arts graduates as teachers and recent initiatives whereby States appoint unprepared teachers on the basis of examination or upon recommendation of a district. While the practice of appointing graduates without teacher education has a long and widespread history, many urban school districts have made this a common practice over the last twenty-five years. Whereas these practices went unpublicized in the 1960's, they are

now revealed openly as examples of upgrading the quality of teaching and schools.

Experience with interns in fifth year programs and with untrained graduates, unaffiliated with any university programs, indicates that the most promising liberal arts graduates (i.e., strong-sensitives) do not stay in teaching. Indeed, in some large urban districts, five out of six of all beginners do not survive the first year. Those who remain in teaching through the first year and beyond tend to be the strong-insensitives.

Recognizing the importance of higher salaries for present teachers and as a means for attracting more able beginners, there are other conditions in the schools which must be changed before those with the greatest potential will remain. These conditions involve all those factors in the school which teachers perceive as influencing the teaching-learning process in their classrooms.

Common Sense

One set of answers generated by the question, "How do you know that teacher education is necessary?" can be characterized as common sense. While there is much experience and expert opinion to support some of these contentions, they rest primarily on the fact that they are common knowledge or that they have face validity.

The first set of these contentions deals with the teaching of special constituencies. In former times there were few pupils with handicapping conditions attending schools. Today, there is an ever-growing number of students with "special" needs. In some school districts more than half of the pupils are disadvantaged (as defined by title I.); handicapped in some way (as defined by Public Law 94.142); bilingual or unable to understand English; learning disabled (this catch-all category is being markedly expanded); or members of a minority, ethnic, or religious group with special curriculum needs. The concept of mainstreaming takes on a humorous quality when only a small minority of pupils in some classes, or schools, can be assumed to be "normal." In these cases, "normal" does not mean desirable or typical: it simply refers to those pupils left over--those who do not meet some designation by the state or federal government as needing special instruction.

What is the rationale for placing a liberal studies graduate with any one of these constituencies? How has gaining a solid background in some academic discipline prepared one to teach this subject matter to non-English speakers, or the deaf, or the

autistic, or the illiterate or the brain damaged, or the emotionally disturbed? Is it really necessary to design a controlled study in which distinguished liberal studies graduates teach retarded and disturbed pupils and compare their performances to teachers who have been prepared for reaching such students? Hopefully, we can accept the reality that there are large (and growing) constituencies of pupils who because of physical, emotional, economic, or cultural reasons do not show up in school every morning prepared or able to learn ... and that there are special ways of working with such constituencies which require specific training and education.

A second common sense argument for some form of teacher education grows out of the experience of the neophyte functioning in a school bureaucracy for the first time. The most overworked word in the lexicon of the inexperienced intern or beginner placed into the role of teacher is "incredible." It is literally beyond the belief and comprehension of many of these beginners (who naively expect logic and reason to dominate the organization and administration of a bureaucracy), that there are so many obstacles to their simply teaching. They perceive the number of classroom interruptions as "incredible"; the uncared for way in which some of the kids come to school is "incredible." The lack of time devoted to actually teaching is "incredible." The attitudes of the principal, or some of the teachers, or the parents, (or all three) is "incredible." The materials, books, media or equipment available is "incredible." And most of all, the lack of knowledge and skills

pupils have is "incredible."

In truth, if these liberal studies graduates were to not become teachers, but to enter the armed forces, or to begin work in a major corporation, or to begin a career in government, their lack of professional training and experience would make their beginning experiences in any of these bureaucracies equally (or more) "incredible." Part of being young (or inexperienced) is the trauma of learning that all reality--but especially the reality of having to work in highly structured, organized, regulated bureaucracies--is inevitably somewhat of a shock to every thoughtful person. There is a (tacit) assumption in the university, where knowledge is derived from rational sources, where every procedure or decision on every level can be openly criticized, where any appeal couched as an issue of fairness or equity can send tremors into the President's Office, that the rest of the world should also be operated on rational, fair means. It is to the university's credit that it is probably the poorest place to be prepared for working in real-world bureaucracies. The exception to this generalization is, of course, in the professional courses. Social workers, nurses, business administrators, architects, lawyers and yes, even teachers have some specific instruction and direct experience which prepares them for working in bureaucracies which will severely impinge on the ideal ways professions "ought" to be practiced. Liberal studies graduates, however, unless they happen upon a political science or sociology course devoted to the analysis of bureaucracies, are more

likely to graduate bright eyed and bushy tailed.

In the absence of valid, reliable knowledge regarding the nature of how individuals function in organizations, it is easy to lapse into the morass of accepting common sense. We assume that schools which are complex, ritualistic, not necessarily rational bureaucracies, controlled by special traditions and peculiar histories, managed by idiosyncratic leaders and pummelled by a variety of uncontrolled external forces, can be understood (and managed) by simple reason. Incredible!

"Complex systems differ from simple ones in being 'counter intuitive,' i.e., not behaving as one might expect them to. They are remarkably insensitive to changes in many system parameters, i.e., ultrastable. They stubbornly resist policy changes. They contain influential pressure points, often in unexpected places, which can alter system-steady states dramatically. They are able to compensate for externally applied efforts to correct them by reducing internal activity that corresponds to those efforts. They often react to a policy change in the long run in a way opposite to their reaction in the short run. Intuition and judgment generated by a lifetime of experience with the simple systems that surround one's every action create a network of expectations and perceptions that could hardly be better designed to mislead the unwary when he moves into the realm of complex systems."
(Forrester, 1972)

Another example of how common sense may mislead us is in the area of job satisfaction. Common sense tells us that people who are satisfied with their work produce more. Some 3,300 studies conducted between 1930 and 1976, however, lead to the conclusion that there is no direct effect of job satisfaction on productivity.

If there is any relation at all it is more likely to be from productivity to satisfaction; that is, that high productivity may lead to the attainment of important job values in a particular social setting. (Locke, 1976) Similarly, job satisfaction is not directly related to factors such as pay, working conditions, stress, and other factors. We are prone to simply assume we know their impact on individuals when in truth these factors are frequently strained through the bureaucracy and emerge with unpredicted or confounding impact.

If these findings from work situations are applicable to teachers in schools, it may mean that teachers' needs to be productive are of primary importance and that the conditions of work which facilitate or impede their feelings of productivity might actually be causes, not effects, of job satisfaction. Also, the common "solutions" now being advocated (increased salaries, career ladders, improved professional development, etc.), which prove to be most fruitful, may be those which will more directly affect productivity rather than perceptions of job satisfaction. Workshops which teach teachers ways to cope with stress, therefore, may (modestly) increase job satisfaction, but are not the primary solution. Not being able to teach productively may lead to teacher stress and lowered job satisfaction.

But recruiting more able individuals into teaching cannot begin with only productivity on the job. Status and regard for teachers are also important conditions of work.

"It is difficult for public policy to manipulate cultural norms, such as status and regard, that might make teaching more attractive. The more manipulable incentives to enter teaching have to do with salary and structuring the quality of work life. Both involve money, but it is difficult to foresee a market response in which wages will increase salaries rapidly enough to attract those who have other market options." (Kerchner, 1984)

Common sense then, is a bad test for evaluating many of the "solutions" currently being proposed. Higher salaries, more respect, fewer interruptions, more supportive service, few extraneous non-teaching duties, more planning time, and opportunities for continuing education and career development, are likely to have a salutary effect on teacher effectiveness. (Corrigan, 1981) (We certainly know that the negative side of these factors is related to decreased teacher productivity.) The great challenge, however, will be to apply any of these obvious improvements to the school bureaucracy and have them not be transformed into an opposite effect. It has been demonstrated in many universities, for example, that given substantial amounts of merit salary funds, the bureaucracy can create procedures for raising salaries which will have the effect of decreasing productivity and lowering job satisfaction. This is not to argue against increased salaries, but to emphasize that common sense solutions will not simply strain through a bureaucracy: complex school organizations must be carefully worked with in the planning

and execution of these solutions.

As important as teacher education is for preparing beginners to work with learners who have special needs and to help the neophyte with the vicissitudes of an "incredible" bureaucracy, there is an even more important reason why the unprepared should be prevented from teaching. The practice of common sense pedagogy quite frequently leads to behaviors which are not simply poor teaching, but which turn children/youth off to learning. Following are just a few behavioral examples of what beginners without preparation are likely to do when they operate on the basis of common sense.

A well educated, well-intentioned adult's common sense "teaching" behaviors are frequently a most ineffective, counter-productive pedagogy. Following are merely a few of the most common sense examples of what unprepared beginners do.

- The teacher works through a series of math problems on the blackboard. After solving each one, the teacher turns to face the class and asks, "Does everyone understand? Are there any questions?"
- The teacher assigns the same homework to everyone in class, moving through the book in sequence.
- The teacher marks students' exam papers by noting the students' mistakes and placing a grade at the top.

- The teacher reads students' compositions and circles incorrect usage or spelling.
- The teacher praises students (e.g., "Right," "fine," "correct,") without explaining the reason or basis for praise.
- The teacher structures lessons so that pupils will always be seeking answers and never trying to frame questions.
- The teacher emphasizes that getting assignments done on time and in full is always of greater value than the quality of what is done, if it is only partially completed or late.
- The teacher discourages group assignments or projects because in the real world each person operates as an individual and has all his work judged independently.
- The teacher regards pupils who follow directions well as cooperative and intelligent.

The list is almost endless. I have had several experiences in which, to teach unprepared beginners that such behaviors must be reflected upon, I have recorded dozens of their directions given in the course of a single hour. At the end of the hour I've asked these beginners, "Where did you get the idea that giving directions like: "Boys line up here, girls over there," or "Those who finish, put their heads down," or "Put your name on the left and the date on

the right," are the way to conduct a class?" In every case, the beginners have responded with the fact that they never really thought about the procedures, or that these were the directions given to them when they were children in school. Beginners without preparation are very likely to relive their own recollections of their own school procedures in an unreflective, ritualistic manner.

As bad as the effect of such common sense teaching is for pupils' learning, it is even more disastrous for class discipline and class management. The unprepared beginner, engaging in ritualistic behaviors, soon finds himself in a situation where pupils are not learning as much as they might be--but all pupils are somewhat tolerant of this situation. Common sense discipline methods, however, soon lead to a breakdown of order and a downward cycle is set in motion.

Following are just a few examples of behaviors which have been demonstrated by research to be effective. Consider which ones might be used by unprepared beginners simply following common sense or reliving their own school experiences.

- "with-it-ness" behaviors
- overlapping behaviors
- maintaining group focus
- sharing leadership
- maintaining group morale
- developing cooperation
- employing classroom meetings
- role playing
- promoting productive group norms
- developing group cohesiveness
- fading
- extinction

- time out
 - satiation
 - incompatible alternatives
 - modeling
 - shaping
 - contingency contracting
 - self monitoring
 - cues
 - prompts
 - signals
 - modifying the classroom environment
 - mild desists
 - administering punishments
- (Weber, Roff, Crawford, Robinson, 1983)

A very few of these teaching behaviors will be self-discovered (e.g., mild desists and punishments). A few others may (or may not) be learned in a liberal studies program (e.g., role playing). The overwhelming number of these behavioral skills, however, will not be learned by neophytes--or even thought of by them--unless it is part of a well-planned, systematically offered teacher education program.

Except for mild or extreme punishments, therefore, there are few if any which unprepared beginners can be expected to utilize. This is not to contend that those who have had teacher education can perform all of these behaviors satisfactorily: the contention is that students who have been taught these teaching skills, have observed master teachers perform them, and have practiced them with children/youth, are more likely to use these practices as beginners--and to be less likely to lapse back into common sense or ritualistic behaviors.

There are, of course, other learnings which are also a

vital part of a sound professional program which are not as amenable to research (i.e., concepts), but which may be effectively taught and used by neophytes without our ability to prove that they are referring to these concepts as they teach. Teacher education curricula are an analogue to curricula in the lower schools; that is, since basic skills are more readily evaluated than higher orders of learning, skills become inordinately important in evaluating program effects.

For many, teacher education programs serve the valuable function of helping large numbers of successful graduates self-select out. While this is perceived as not good enough by critics who want the universities to do the failing, it is, nevertheless, a useful but largely unnoticed value of teacher education. After learning the complexities of teaching, or being turned off by conditions in the schools, or because of other job offers, or for a variety of unknown reasons, large numbers of graduates never seek a teaching position. Fourteen states report that only half of their fully certified teachers ever enter a classroom. (Feistritzer, 1984) If this figure is representative, there is a valuable screening service which teacher education

programs are performing--one which does not waste the time of children/youth in schools.

Summary

A great (and increasing) number of children/youth have handicapping conditions: physical, emotional, linguistic, behavioral, cultural, economic, or very likely, combinations of several such conditions. There is no rational basis for connecting success in university liberal studies programs with meeting the complex needs of such special students.

Common sense is an inadequate approach to understanding the workings of the school bureaucracy. Popular solutions for improving teachers' performance (even salary increases) must be carefully worked through particular school settings to ensure that their actual effects will be positive.

Beginning teachers who are unprepared, utilize procedures which reflect their own schooling, or which simply seem sensible. Many (if not most) of these ritualistic teacher patterns actually prevent the establishment of a positive classroom environment or pupil learning. There is much experiential and research evidence to support the contention that the teaching behavior of well-educated, well-intentioned adults is very frequently counter productive.

Teacher education graduates produce substantial numbers of certified graduates who never seek teaching positions. This process is less harmful than placing beginners into classrooms and having them screened by pupils.

A Final Note

The chief obstacle to diagnosing educational problems is that the symptoms are frequently far removed from their sources. We need to search for the most reasonable connections between problems and their causes without being deterred by our inability to completely understand all of the intervening factors, or our inability to prove that we have accounted for all of the causes in these long chains of events. In this search for connections between symptoms and sources, insight which generates plausible explanations is our greatest ally; the need for specious certitude our persistent enemy. Difficult, important conditions which we can only partially explain by making plausible arguments should not be avoided in favor of questions which can be answered with great certitude, but which contribute little to our understanding of serious problems.

The next cycle of pressure on the public schools is already taking shape. The demands for excellence are being mitigated by the demands for access and for serving all constituencies. Dropouts are increasing and G.E.D. exams in lieu of diplomas are also increasing significantly. (In Wisconsin, for example, the number of youth who do not attend high school and simply earn an equivalency diploma via the examination route, is moving from 1/5 to 1/4 of the total of high school graduates.) In many localities, the demand for more vocational preparation in high school is already exerting greater pressure than calls for excellence.

At the same time Schools of Education will soon begin expanding to meet the demands for new teachers. The combination of these two trends could motivate many teacher educators to simply ignore the present debates and to return to business as usual--cranking out large numbers of teachers from the same old programs.

This would indeed be unfortunate. The present opportunities to improve the school conditions under which teachers practice and the opportunity to upgrade teacher education should not be missed. If it really is true that half of all the teacher education graduates come from only 17 per cent of the 1,287 teacher preparing institutions, (Feistritz, 1984) then changes do not have to be very widespread in order to have a significant impact on American education.

There are few responsible leaders who really believe the extreme position that teacher education is, as a concept, worthless. Their criticism of teacher education is as it is practiced in many institutions and of the graduates from those programs who are clearly substandard in basic achievements. The response to these criticisms is not for teacher educators to circle the wagons but to join with responsible critics and to improve our programs. Few outside critics have been as harsh as the teacher educators themselves at their annual meetings or in their own publications.

In truth, the great challenge for teacher educators is that they are middlemen between school practitioners on their left and arts and science faculty on their right. The school practitioners would eagerly transform the whole teacher education program into one of on-site school practice, while the arts and science faculty would keep expanding the number of university courses as the only road to excellence. The leadership and control over teacher education will, as in the past, devolve to those individuals who can negotiate these differences and who can reshape teacher education programs to actually respond to the next cycle of demands on public education.

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